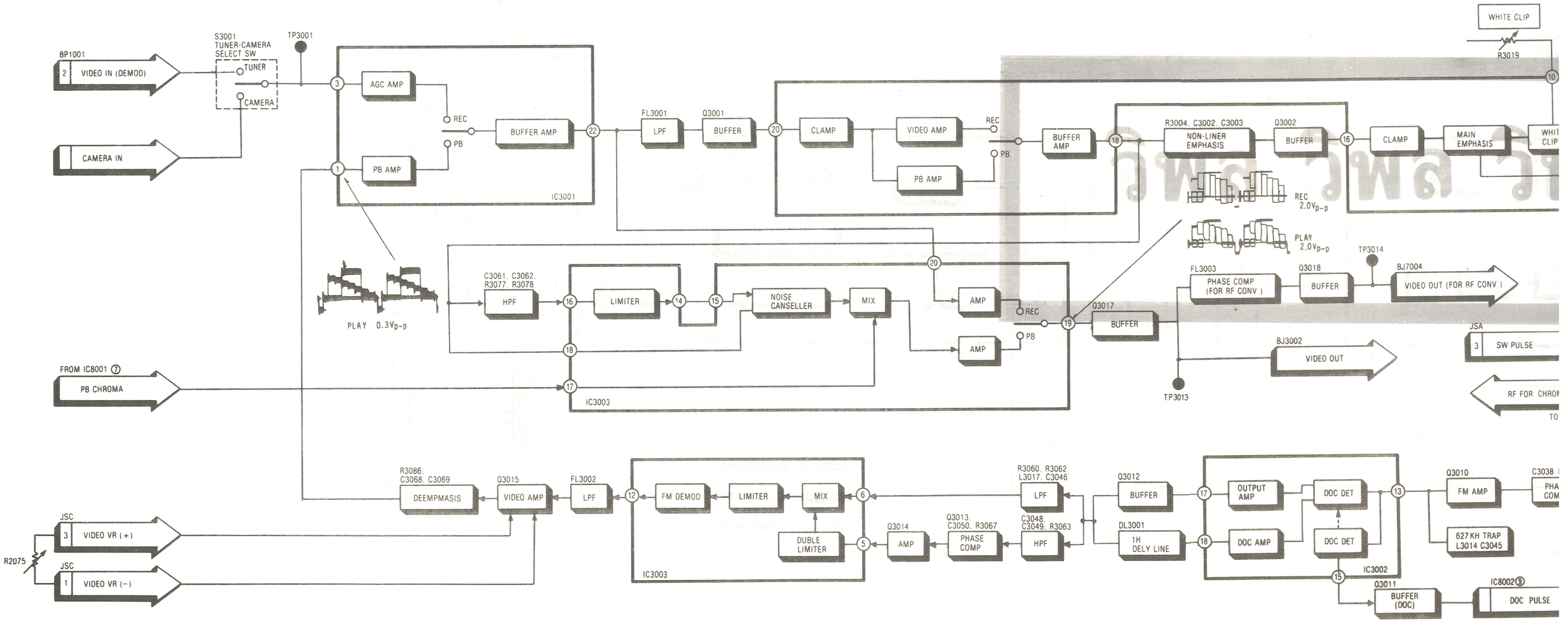
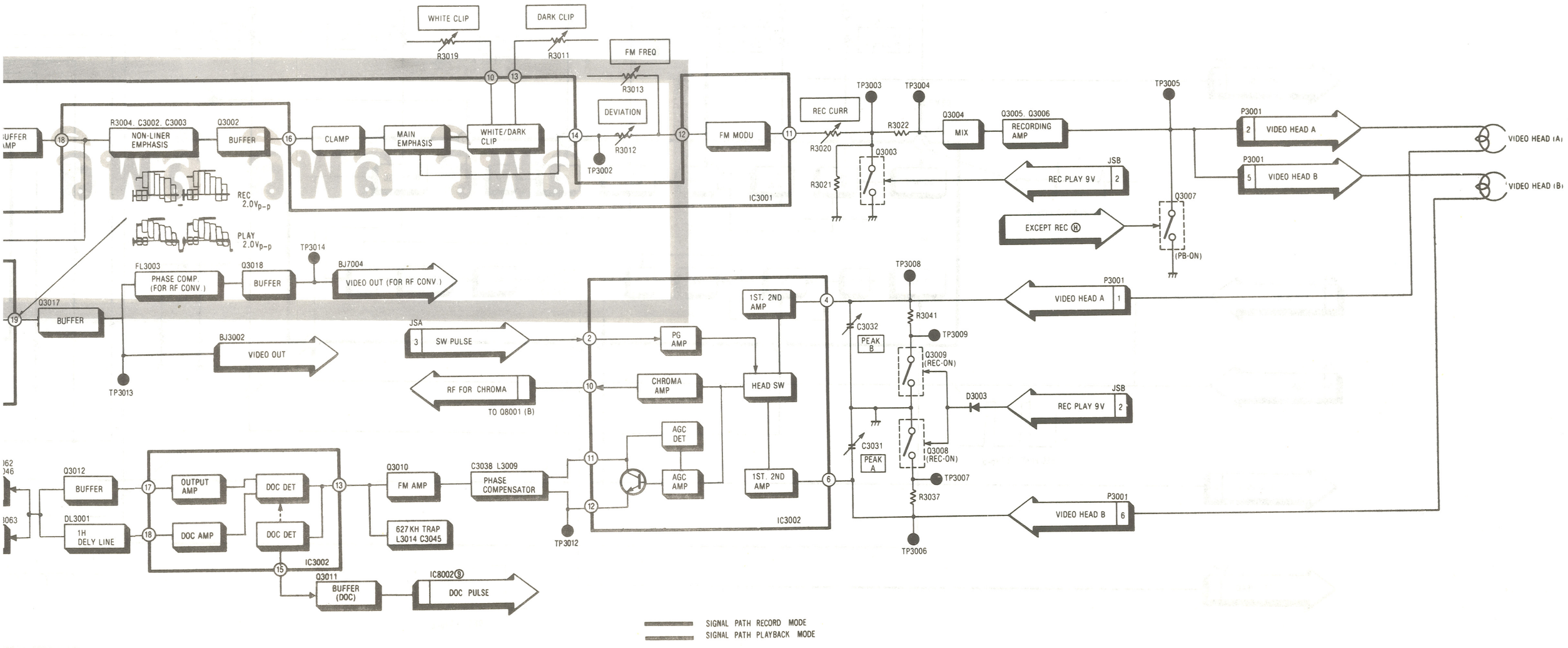
PANASONIC NV - 300

MODEL

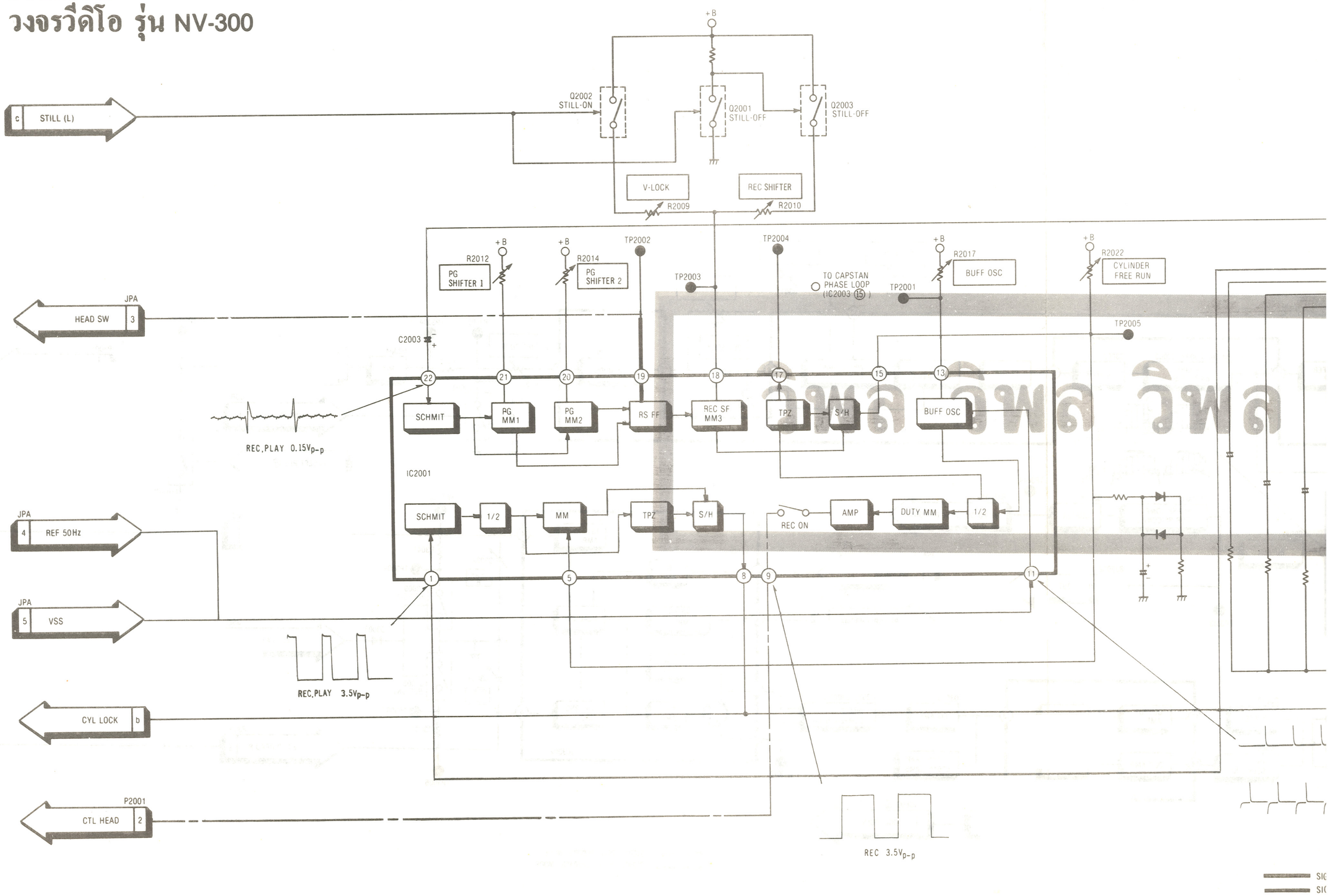
SERVICE MANUAL

LUMINANCE PROCESS BLOCK DIAGRAM
วงจรวีดีโอ รุ่น NV-300




WHITE CLIP
DARK CLIP
R3019
R3011
FM FREQ
R3013
DEVIATION
R3012
TP3002
10
13
14
12
11
18
16
19
R3004. C3002. C3003
NON-LINER EMPHASIS
Q3002
BUFFER
CLAMP
MAIN EMPHASIS
WHITE/DARK CLIP
FM MODU
IC3001
REC 2.0Vp-p
PLAY 2.0Vp-p
TP3003
TP3004
REC CURR
R3020
R3021
R3022
Q3004
MIX
Q3005. Q3006
RECORDING AMP
Q3003
TP3005
P3001
2
VIDEO HEAD A
5
VIDEO HEAD B
JSB
REC PLAY 9V
2
EXCEPT REC Ⓗ
Q3007
(PB-ON)
VIDEO HEAD (A)
VIDEO HEAD (B)
TP3014
FL3003
PHASE COMP. (FOR RF CONV.)
Q3018
BUFFER
BJ7004
VIDEO OUT (FOR RF CONV.)
Q3017
BUFFER
BJ3002
VIDEO OUT
TP3013
JSA
3
SW PULSE
RF FOR CHROMA
TO Q8001 (B)
2
10
PG AMP
CHROMA AMP
1ST. 2ND AMP
HEAD SW
AGC DET
AGC AMP
11
12
4
6
IC3002
TP3012
TP3008
R3041
TP3009
C3032
PEAK B
Q3009 (REC-ON)
D3003
JSB
REC PLAY 9V
2
C3031
PEAK A
Q3008 (REC-ON)
TP3007
R3037
P3001
VIDEO HEAD A
1
P3001
VIDEO HEAD B
6
TP3006
Q3012
BUFFER
17
OUTPUT AMP
DOC DET
13
Q3010
FM AMP
C3038 L3009
PHASE COMPENSATOR
DL3001
1H DELY LINE
18
DOC AMP
DOC DET
627KH TRAP L3014 C3045
15
IC3002
Q3011
BUFFER (DOC)
IC8002⑨
DOC PULSE
SIGNAL PATH RECORD MODE
SIGNAL PATH PLAYBACK MODE

CYLINDER SERVO BLOCK DIAGRAM
วงจรวีดีโอ รุ่น NV-300



วิพล วิพล วิพล

2003
TILL-OFF

REC 15Vp-p

P001
PG 12

+B
R2017
BUFF OSC
TP2001

+B
R2022
CYLINDER FREE RUN
TP2005

CAPSTAN
SE LOOP
003 (15)

P001
10 M3
9 M2
8 M1

15 13 22 20 21 19 18 13

IC2002

FEED BACK

3 DEFFERENTIAL AMP

PRE AMP

DETECTOR

CYLINDER FG GENERATOR

OSCILLATOR

DDC

N S

(VCC/2)

1 3 5 7 8 9

P001
1 OSC
3 P-COM
4 P1
5 P2
6 P3
7 M-COM

BUFF OSC

AMP

DUTY MM

1/2

11

REC
0.7Vp-p

REC 1.7Vp-p

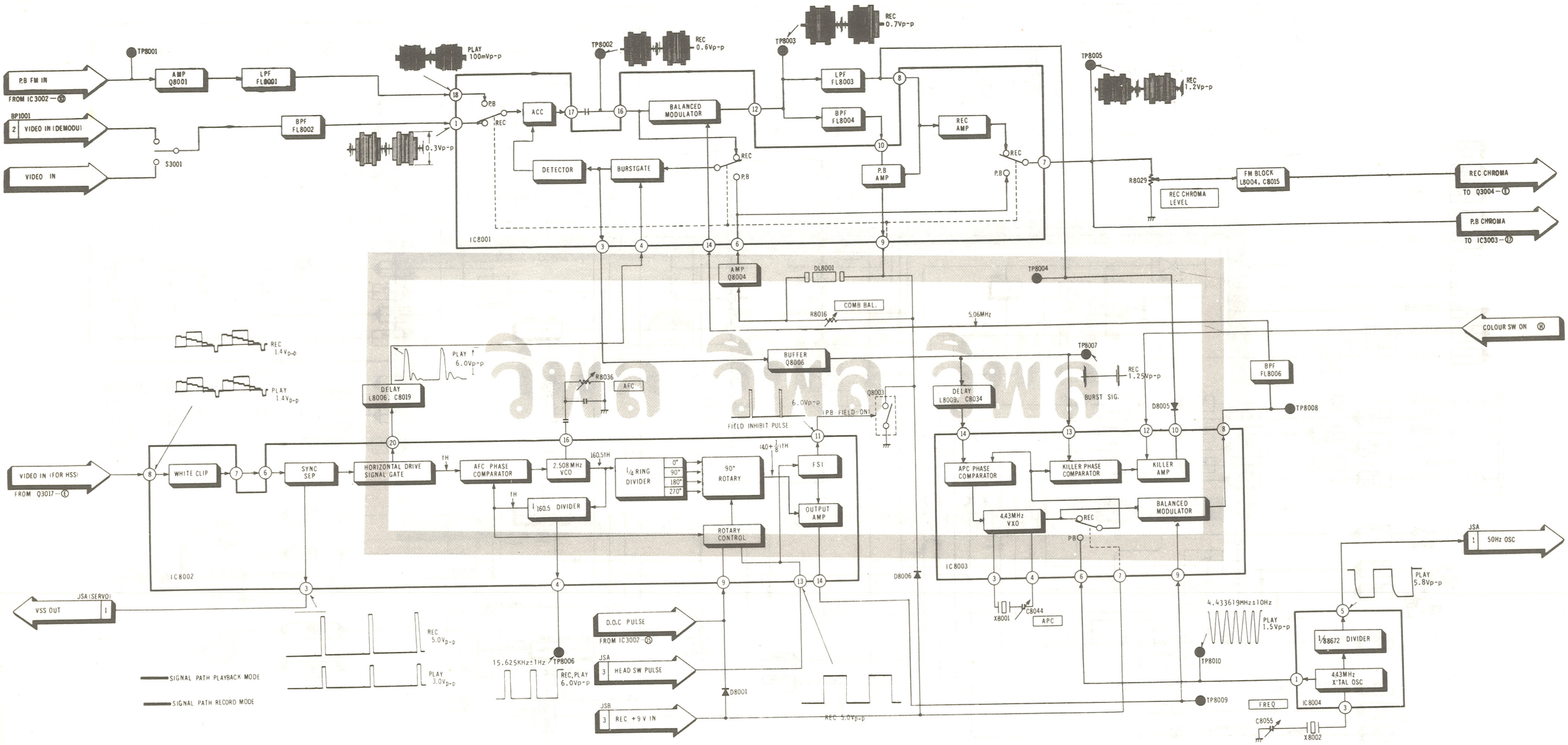
PLAY
1.1Vp-p

REC 3.5Vp-p

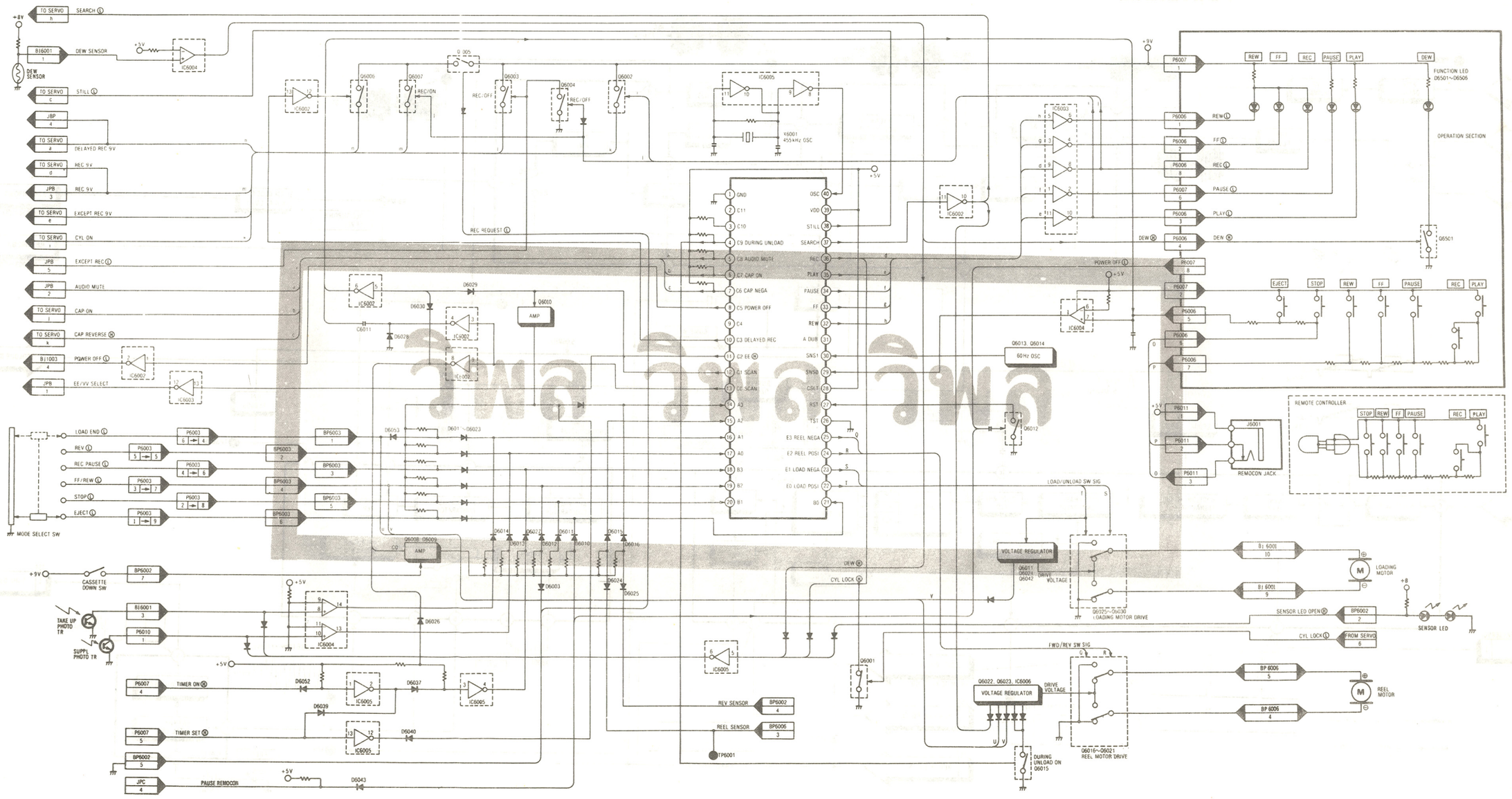
SIGNAL PATH PHASE LOOP
SIGNAL PATH SPEED LOOP

พล วิพล วิพล

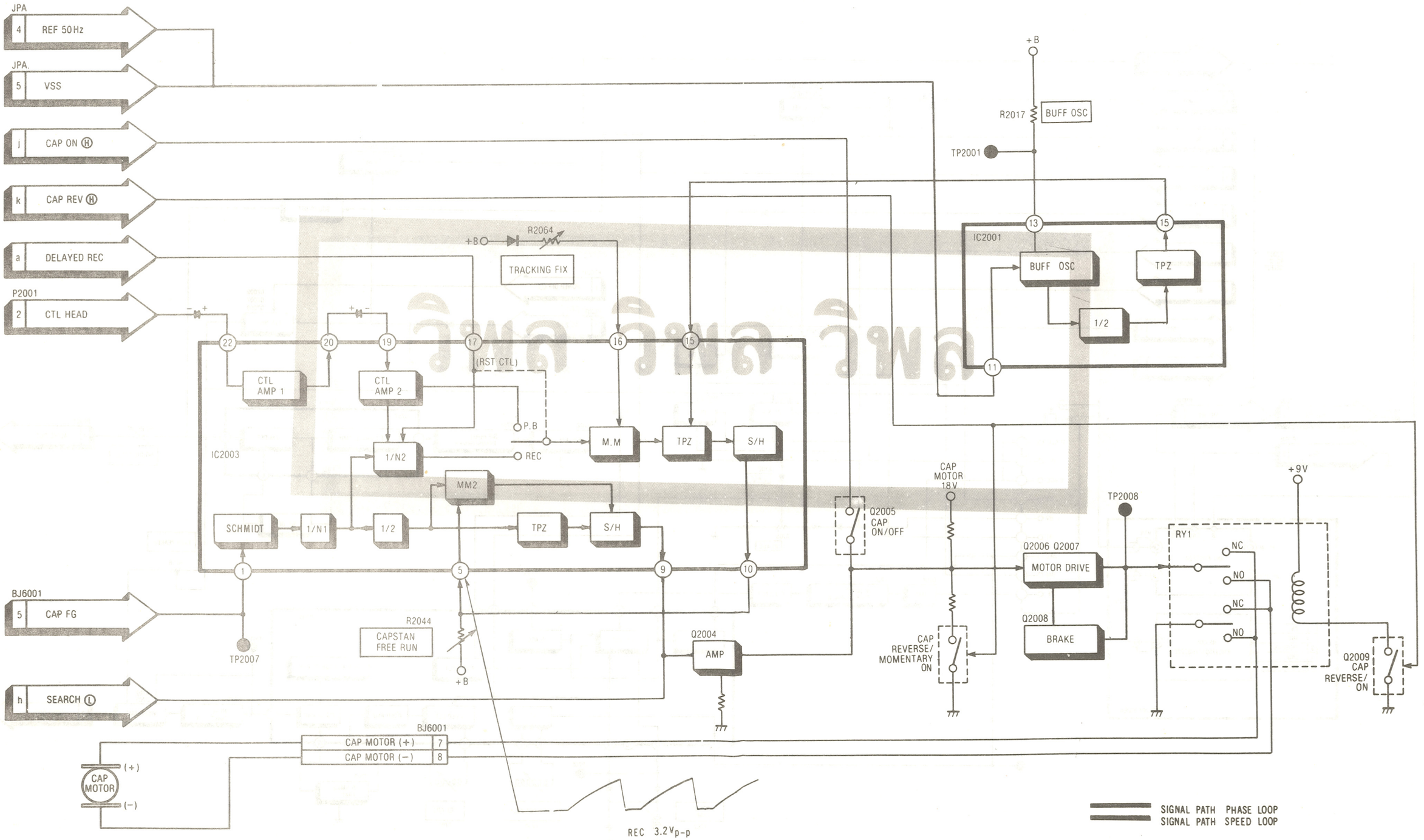
วงจรวีดิโอ รุ่น NV-300
CHROMINANCE PROCESS BLOCK DIAGRAM



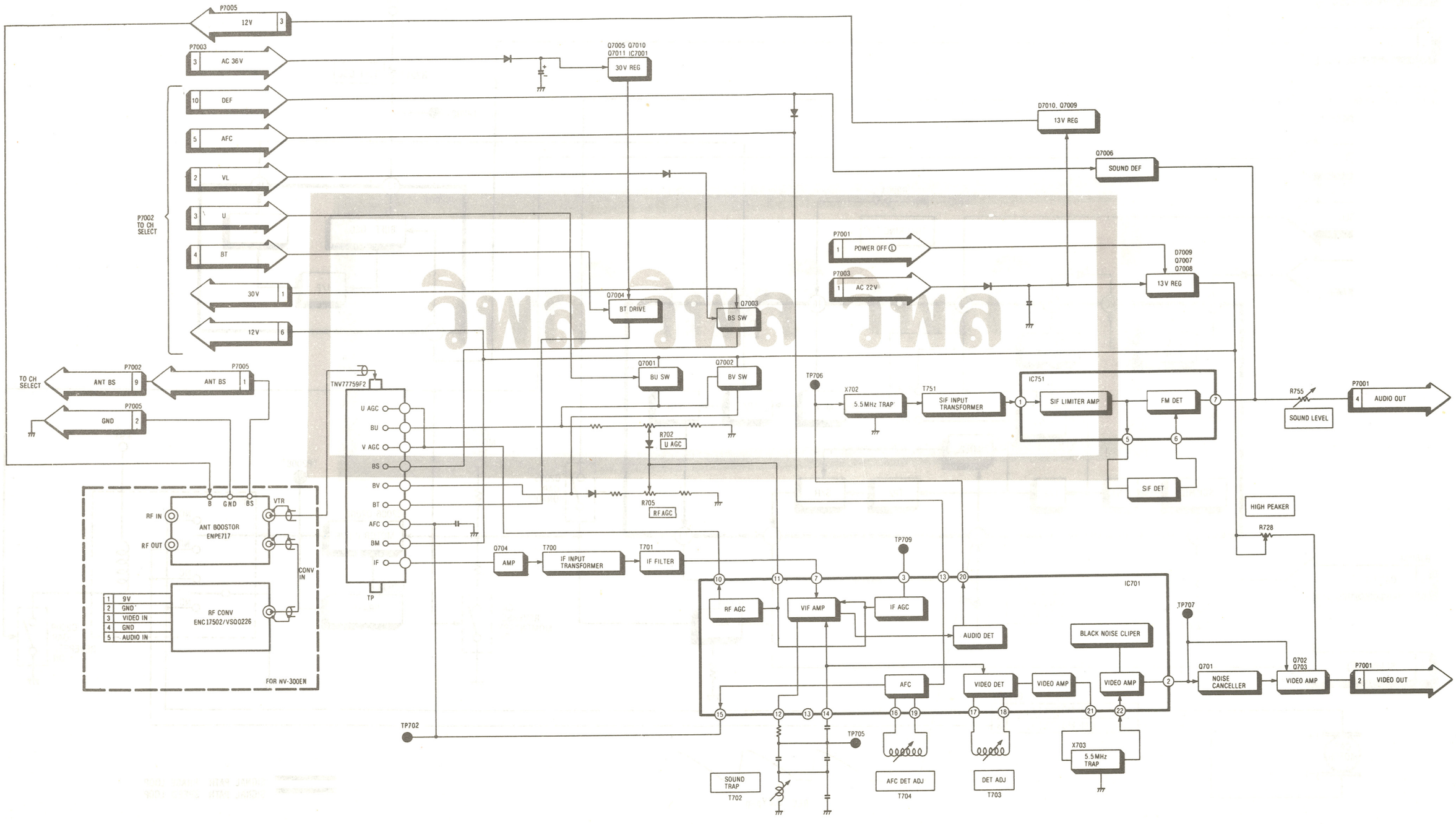
วงจรวีดิโอ รุ่น NV-300
SYSTEM CONTROL BLOCK DIAGRAM



CAPSTAN SERVO BLOCK DIAGRAM
วงจรวีดีโอ รุ่น NV-300



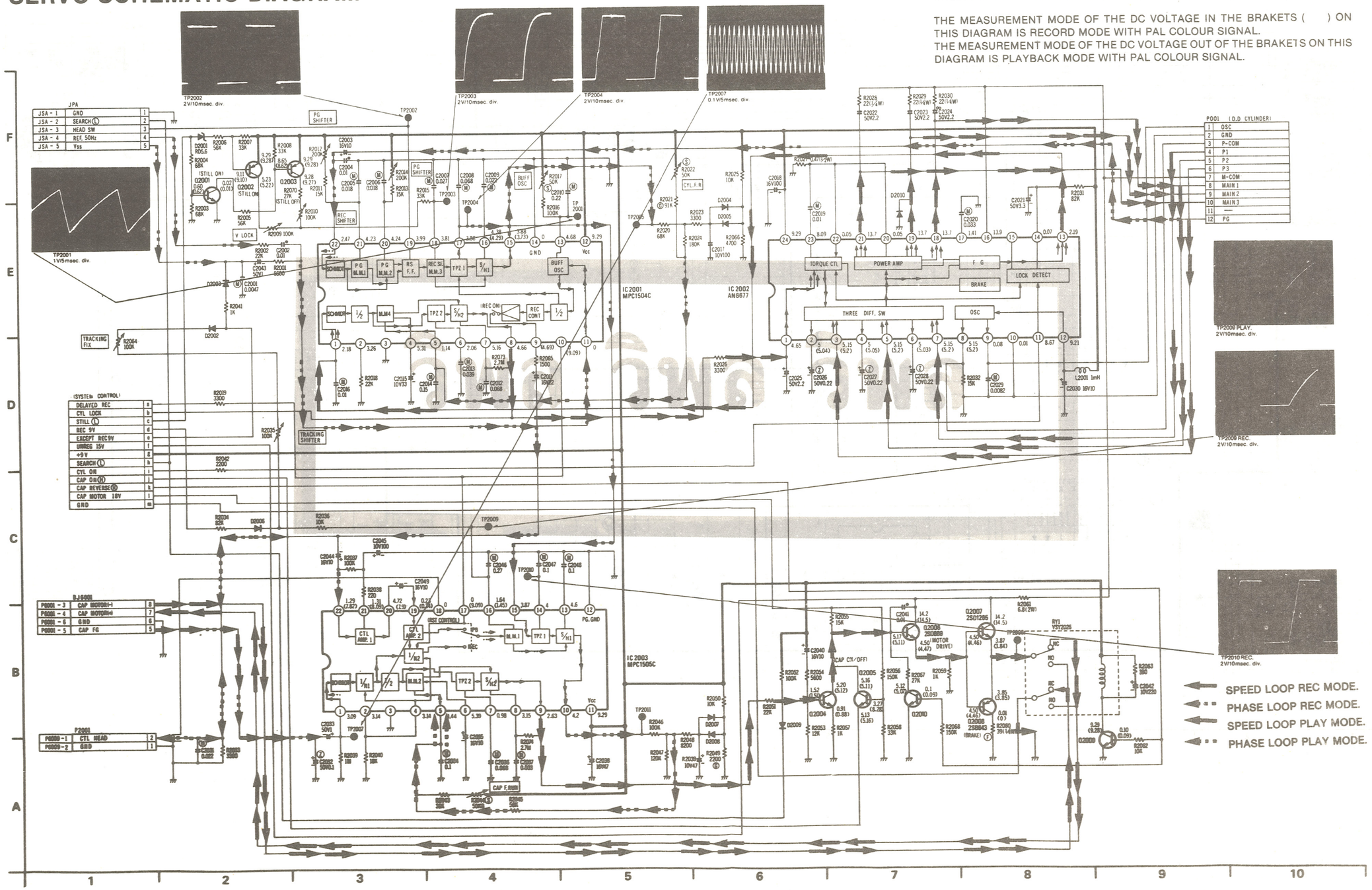
วงจรวีดิโอ รุ่น NV-300
TV DEMODULATOR BLOCK DIAGRAM *(NV-300EN)*



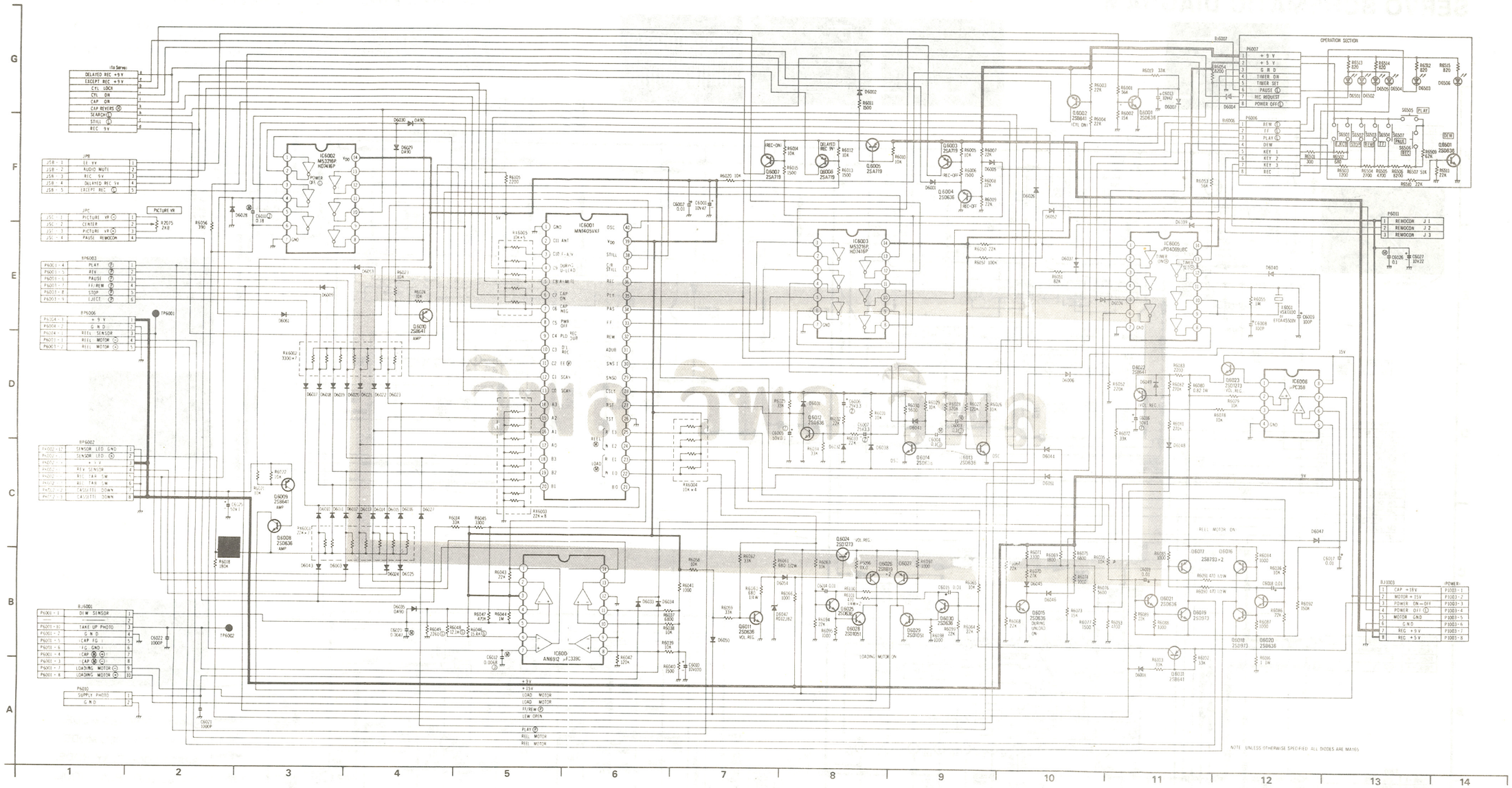
วงจรวีดีโอ รุ่น NV-300
SERVO SCHEMATIC DIAGRAM

NOTE: UNLESS OTHERWISE SPECIFIED, ALL DIODES ARE MA165
UNLESS OTHERWISE SPECIFIED, ALL Tr's ARE 2SD636 (NPN TYPE)

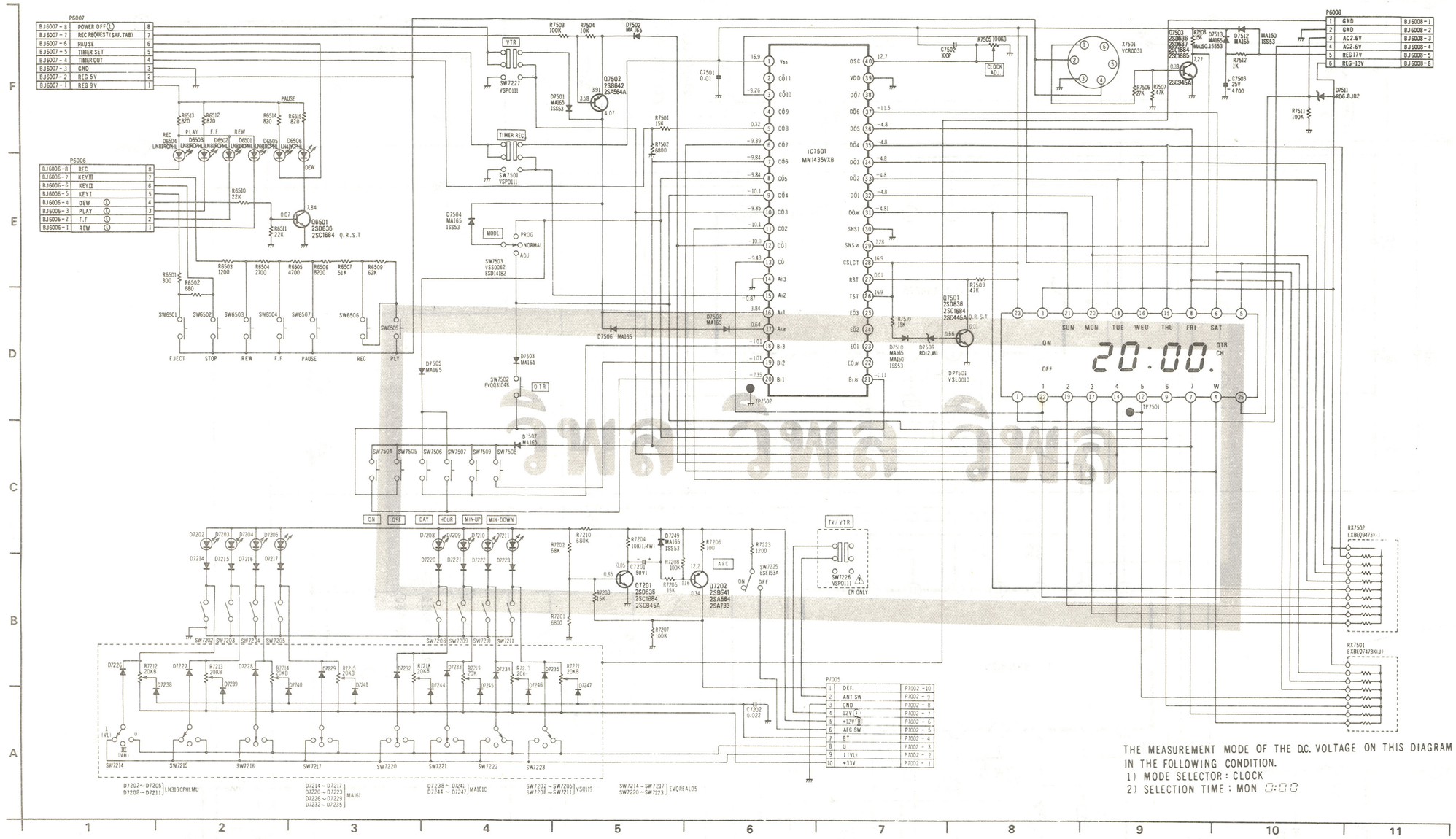
THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRAKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRAKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.



วงจรวีดิโอ รุ่น NV-300
SYSTEM CONTROL SCHEMATIC DIAGRAM



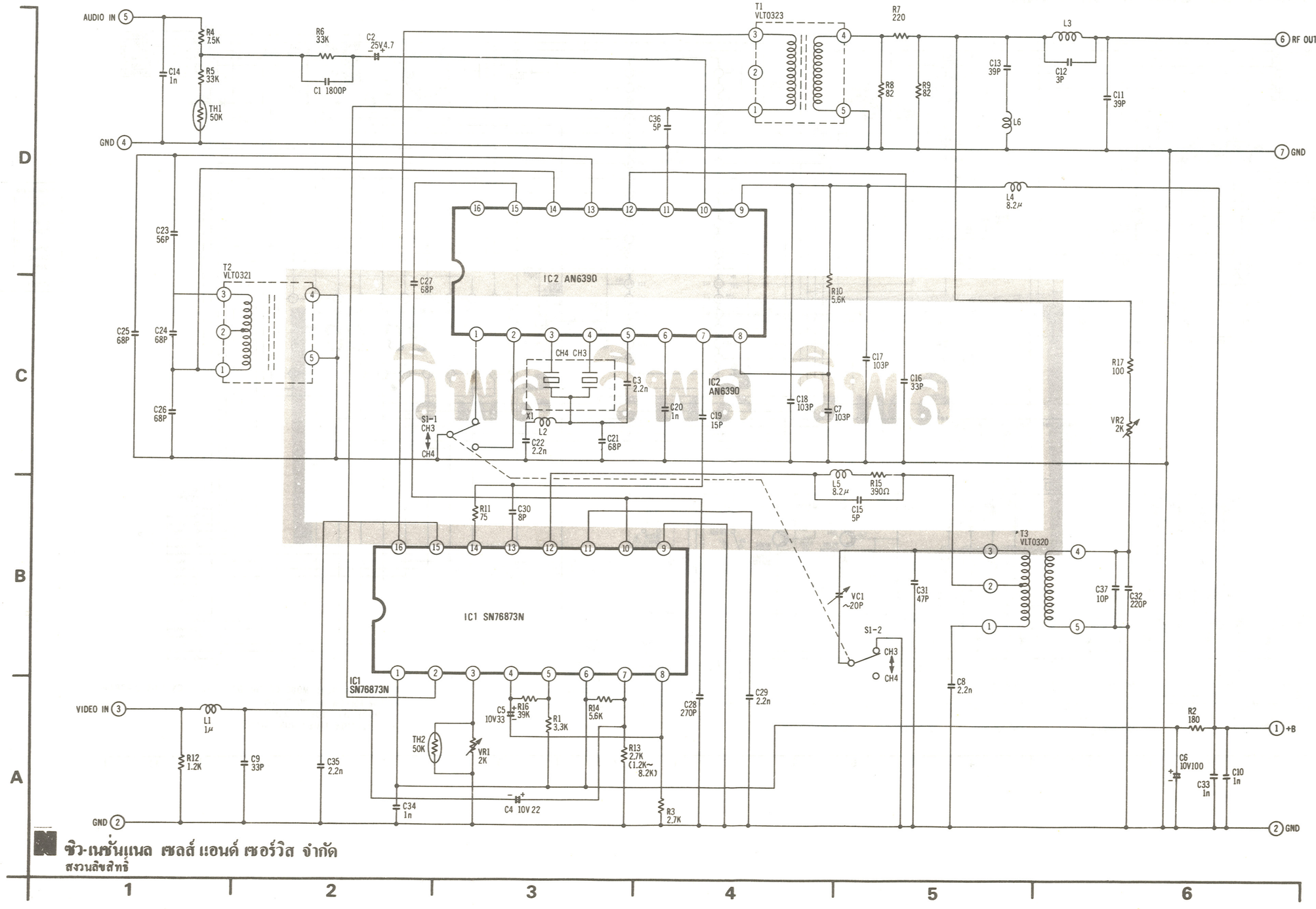
วงจรวีดีโอ รุ่น NV-300
FRONT BOARD SCHEMATIC DIAGRAM



Front Board	
Q6501	E-3
Q7201	B-5
Q7202	B-6
Q7501	D-8
Q7502	F-5
Q7503	F-9
IC7501	E-7

THE MEASUREMENT MODE OF THE D.C. VOLTAGE ON THIS DIAGRAM IN THE FOLLOWING CONDITION.
1) MODE SELECTOR : CLOCK
2) SELECTION TIME : MON 0:00

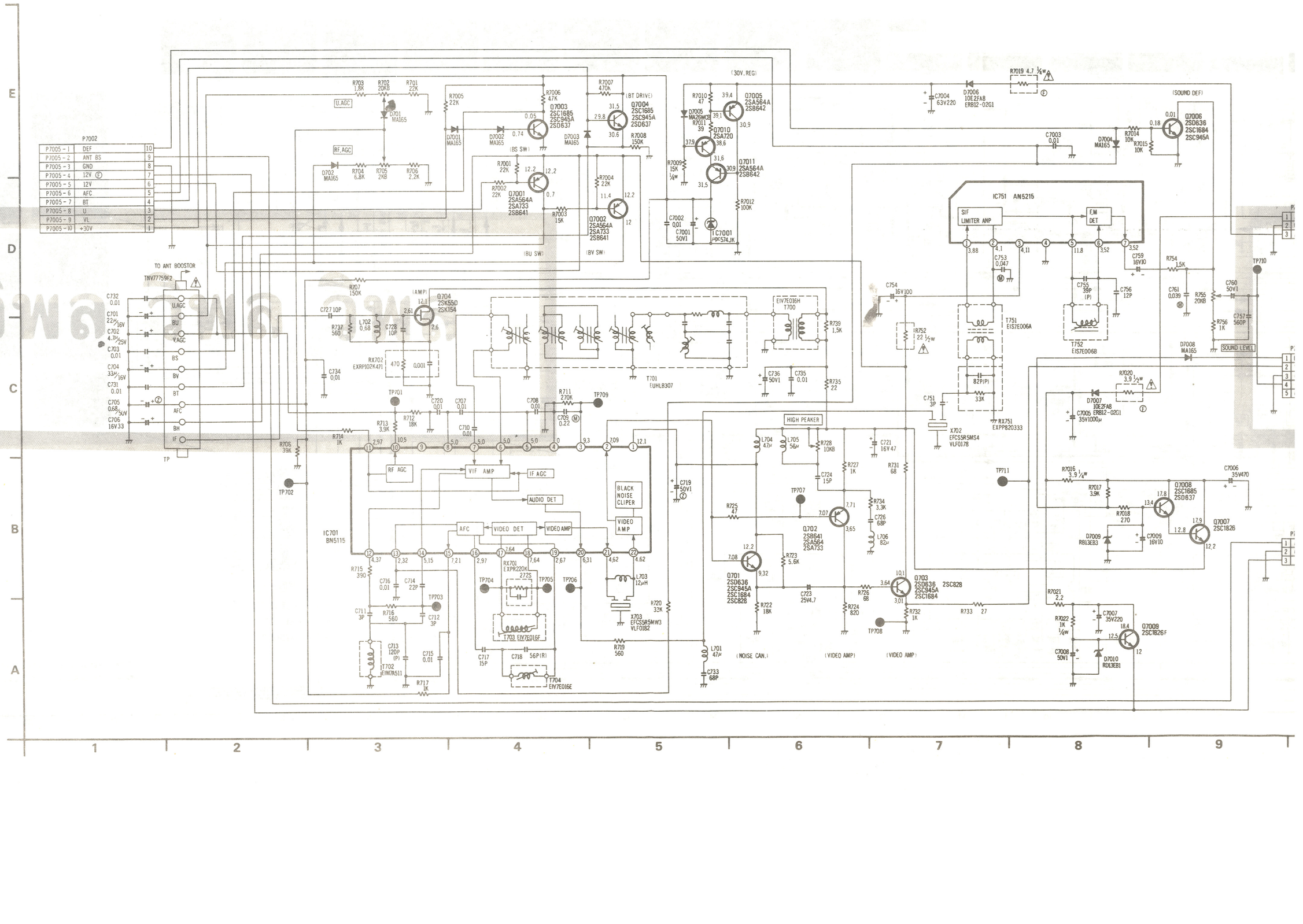
วงจรวีดิโอ รุ่น NV-300
RF CONVERTER SCHEMATIC DIAGRAM (ENC17502)



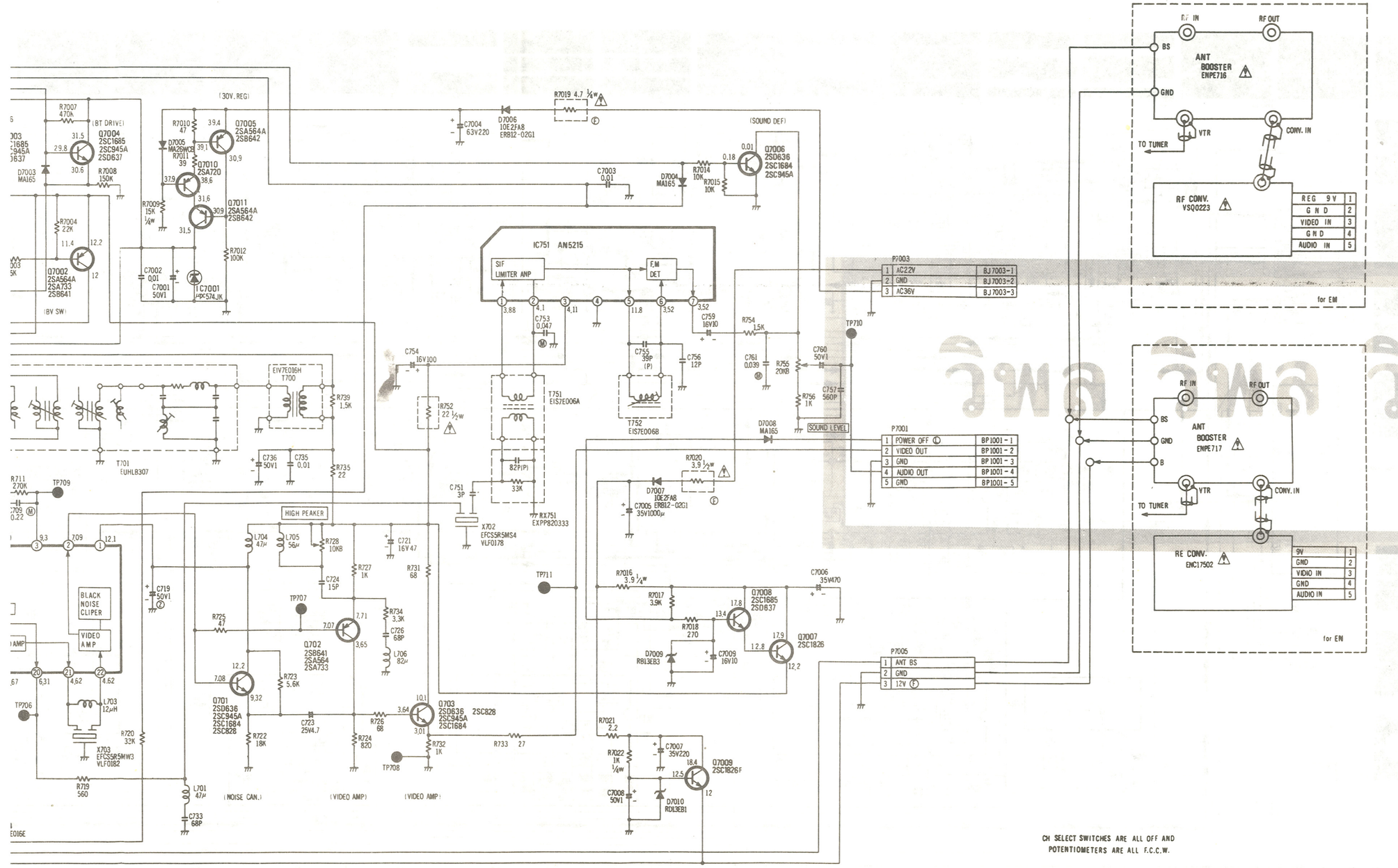
วิพล วิพล วิพล

ชิว-เนชั่นแนล เซลส์ แอนด์ เซอร์วิส จำกัด
สงวนลิขสิทธิ์

วงจรวีดิโอ รุ่น NV-300
TV DEMODULATOR SCHEMATIC DIAGRAM



วิพล สุขสด ลิขสิทธิ์



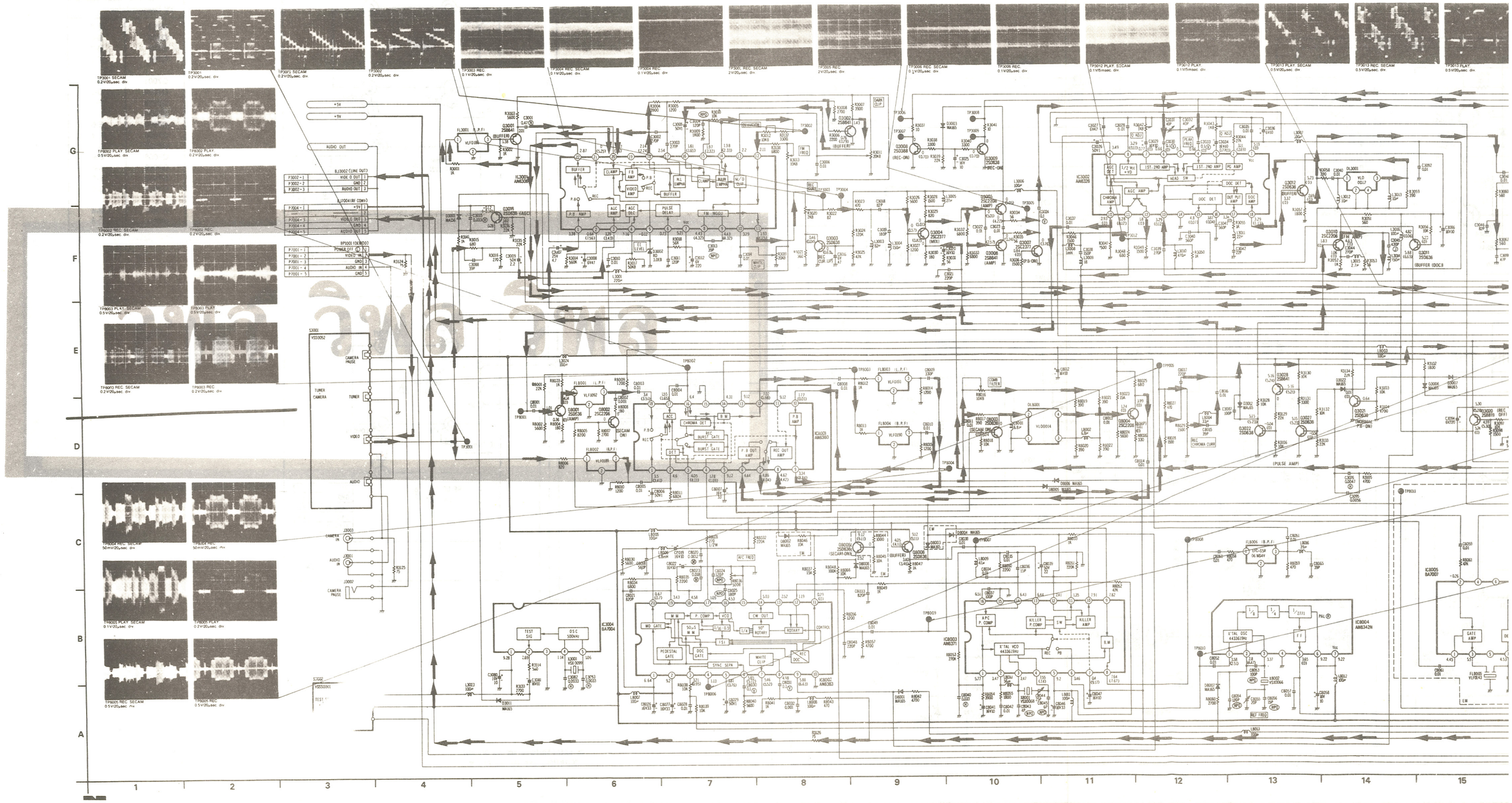
TV Demodulator	
Q701	B-6
Q702	B-6
Q703	B-7
Q704	C-3
Q7001	D-4
Q7002	D-5
Q7003	E-4
Q7004	E-5
Q7005	E-6
Q7006	E-9
Q7007	B-9
Q7008	B-9
Q7009	A-8
Q7010	E-5
Q7011	D-5
IC701	B-4
IC751	D-8

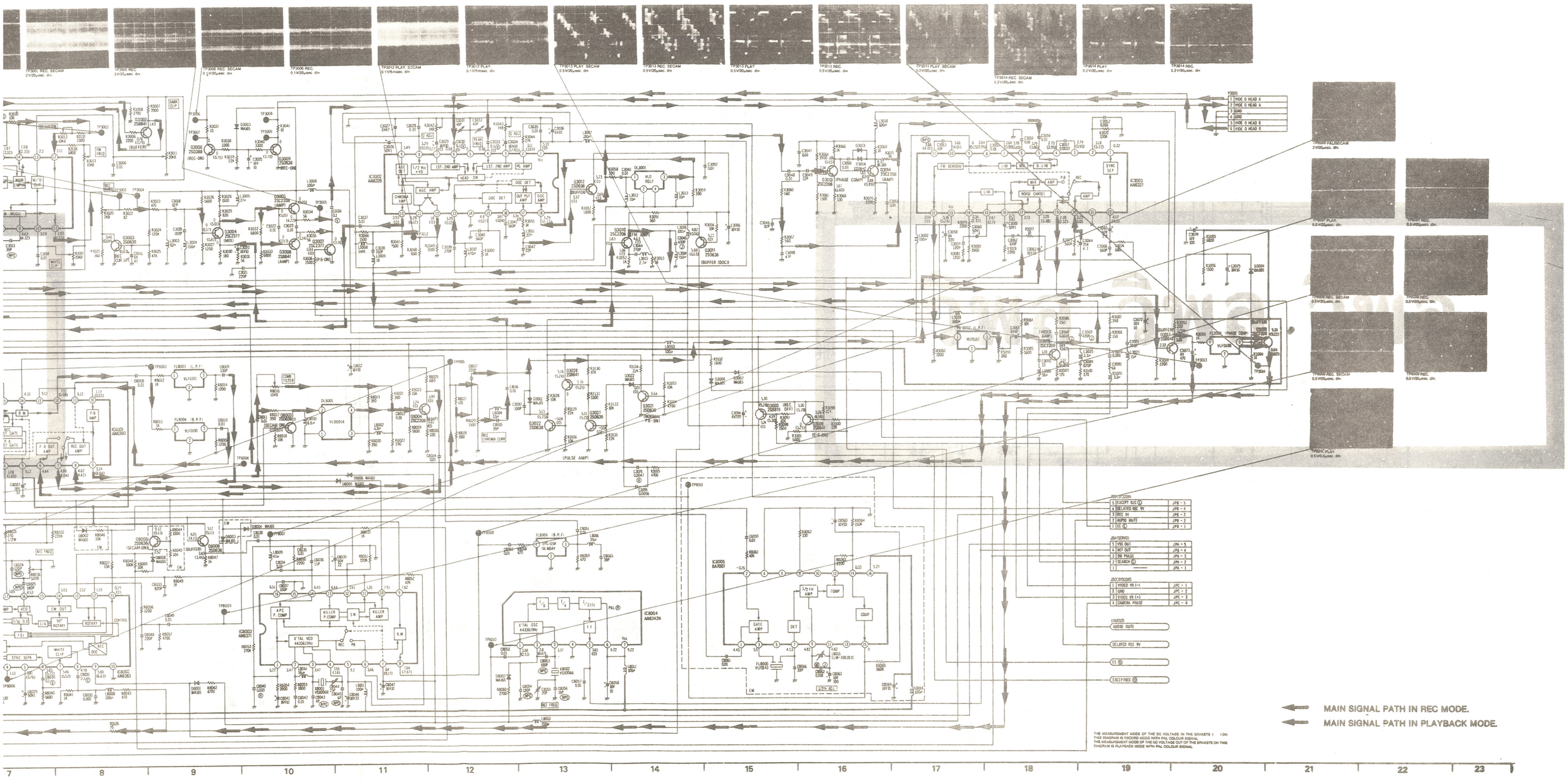
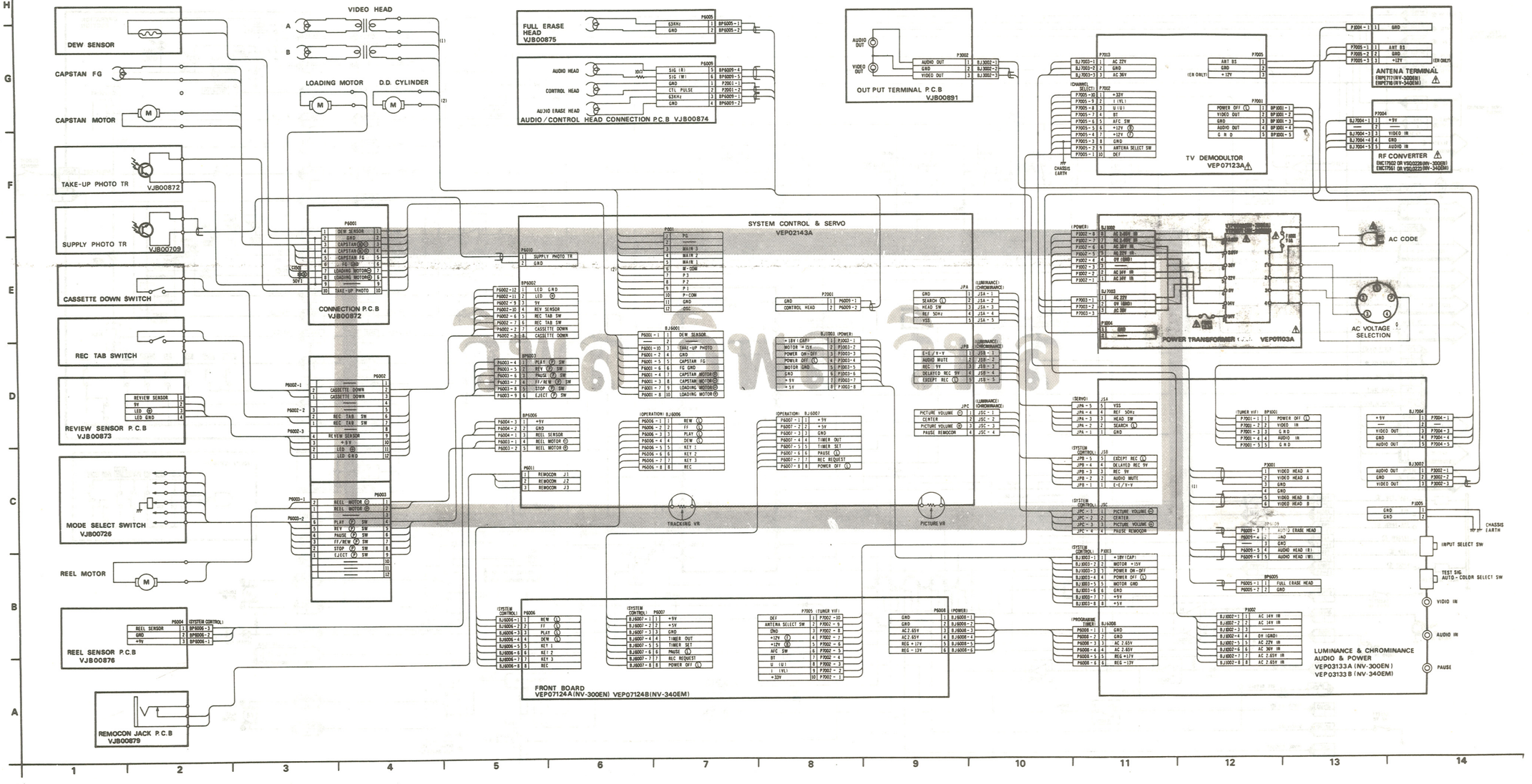
CH SELECT SWITCHES ARE ALL OFF AND POTENTIOMETERS ARE ALL F.C.C.W.

วิพล วิพล วิพล

5 6 7 8 9 10 11 12

วงจรวีดิโอ รุ่น NV-300
LUMINANCE & CHROMINANCE SCHEMATIC DIAGRAM


TP3001 SECAM 0.2V/20μsec div
TP3001 0.2V/20μsec div
TP3002 SECAM 0.2V/20μsec div
TP3002 0.2V/20μsec div
TP3003 REC 0.1V/20μsec div
TP3004 REC SECAM 0.1V/20μsec div
TP3004 REC 0.1V/20μsec div
TP3005 REC SECAM 2V/20μsec div
TP3005 REC 2V/20μsec div
TP3006 REC SECAM 0.1V/20μsec div
TP3006 REC 0.1V/20μsec div
TP3012 PLAY SECAM 0.1V/5msec div
TP3012 PLAY 0.1V/5msec div
TP3013 PLAY SECAM 0.5V/20μsec div
TP3013 REC SECAM 0.5V/20μsec div
TP3013 PLAY 0.5V/20μsec div
TP8002 PLAY SECAM 0.5V/20μsec div
TP8002 PLAY 0.2V/20μsec div
TP8002 REC SECAM 0.2V/20μsec div
TP8002 REC 0.2V/20μsec div
TP8003 PLAY SECAM 0.5V/20μsec div
TP8003 PLAY 0.5V/20μsec div
TP8003 REC SECAM 0.2V/20μsec div
TP8003 REC 0.2V/20μsec div
TP8004 REC SECAM 50mV/20μsec div
TP8004 REC 50mV/20μsec div
TP8005 PLAY SECAM 0.1V/20μsec div
TP8005 PLAY 0.2V/20μsec div
TP8005 REC SECAM 0.5V/20μsec div
TP8005 REC 0.5V/20μsec div
+5V
+9V
AUDIO OUT
BJ3002 (LINE OUT)
VIDEO OUT 1
GND 2
AUDIO OUT 3
BJ3004 (RF CONV)
+7V 1
+VCC 2
VIDEO OUT 3
GND 4
AUDIO OUT 5
BP3001 (CAMERA)
POWER OFF 1
VIDEO 2
GND 3
AUDIO IN 4
GND 5
S3001 VSS0052
CAMERA PAUSE
TUNER CAMERA
TUNER
VIDEO
AUDIO
J3003 CAMERA IN
J3001 AUDIO IN
J3002 CAMERA PAUSE
S3002 VSS0001
TEST
IC3004 BA7004
TEST SIG
OSC 500KHz
IC3003 AN6306
IC3002 AN6326
IC8003 AN6371
IC8004 AN6342N
IC8005 BA7007
IC8002 AN6363
Q3001 2SC2709 (AMP)
Q3002 2SC2377 (AMP)
Q3003 2SD638 (REC CUR LVL)
Q3004 2SC2377 (MIX)
Q3005 2SC2236 (AMP)
Q3006 2SB641 (AMP)
Q3007 2SC2236 (AMP)
Q3008 2SB641 (AMP)
Q3009 2SD638 (REC-ON)
Q3010 2SC2236 (BUFFER (DOC))
Q3011 MA365
Q3012 2SD638 (BUFFER)
Q3013 2SB641 (BUFFER)
Q3014 2SD638 (REC-ON)
Q3015 2SD638 (AGC)
Q3016 2SD638 (SECAM-ON)
Q3017 2SD638 (BUFFER)
Q3018 MA365
Q3019 2SD638 (REC-ON)
Q3020 2SB641 (BUFFER)
Q3021 2SD638 (PB-ON)
Q3022 2SD638
Q3023 2SC2236 (PULSE AMP)
Q3024 2SC2236 (PULSE AMP)
Q3025 2SD638 (PB-ON)
Q3026 2SD638 (PB-ON)
Q3027 2SD638 (REC-ON)
Q3028 2SB641
Q3029 2SD638
Q3030 2SD638 (PB-ON)
Q3031 2SD638 (PB-ON)
Q3032 2SD638 (PB-ON)
Q3033 2SD638 (PB-ON)
Q3034 2SC2236
Q3035 2SD638 (PB-ON)
Q3036 2SD638 (PB-ON)
Q3037 2SD638 (PB-ON)
Q3038 2SD638 (PB-ON)
Q3039 2SD638 (PB-ON)
Q3040 2SD638 (PB-ON)
Q3041 2SD638 (PB-ON)
Q3042 2SD638 (PB-ON)
Q3043 2SD638 (PB-ON)
Q3044 2SD638 (PB-ON)
Q3045 2SD638 (PB-ON)
Q3046 2SD638 (PB-ON)
Q3047 2SD638 (PB-ON)


TP3001 REC SECAM 2V/20μsec. div
TP3005 REC 2V/20μsec. div
TP3006 REC SECAM 0.1V/5μsec. div
TP3005 REC 0.1V/20μsec. div
TP3012 PLAY SECAM 0.1V/5msec. div
TP3012 PLAY 0.1V/5msec. div
TP3013 PLAY SECAM 0.5V/20μsec. div
TP3013 REC SECAM 0.5V/20μsec. div
TP3013 PLAY 0.5V/20μsec. div
TP3013 REC 0.5V/20μsec. div
TP3014 PLAY SECAM 0.2V/20μsec. div
TP3014 REC SECAM 0.2V/20μsec. div
TP3014 PLAY 0.2V/20μsec. div
TP3014 REC 0.2V/20μsec. div
P3001
1 VIDE O HEAD A
2 VIDE O HEAD A
3 GND
4 GND
5 VIDE O HEAD B
6 VIDE O HEAD B
TP8001 PALSECAM 2V/20μsec. div.
TP8001 PLAY 0.5V/20μsec. div.
TP8001 REC 0.5V/20μsec. div.
TP8002 REC SECAM 0.5V/20μsec. div.
TP8002 REC 0.5V/20μsec. div.
TP8004 PLAY 0.5V/0.5μsec. div.
IC3002 AN8328
IC3003 AN8327
IC8003 AN8371
IC8004 AN8342N
IC8005 BA7007
IC8002 AN8383
IC3001 AN8360
(PULSE AMP)
(PHASE COMP)
(BUFFER)
(BUFFER (DOC))
(IBUFFER)
(REC-ON)
(REC-ONLY)
(ISECAM-ONLY)
(PB-ONLY)
(IBUFFER)
(IBUFFER)
(IBUFFER

วงจรวีดีโอ รุ่น NV-300
INTERCONNECTION SCHEMATIC DIAGRAM